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ABSTRACT

The impact of group hypnotic and self-hypnotic training on the academic performance and self-esteem of learning disabled children was explored. Three hypnotic training sessions and instructions for six weeks of daily self-hypnotic practice containing suggestions for imagery related to improvement in these areas were given to 15 children, their reading teacher, and both their parents, and their responses were compared to a similar but untreated control group of 18. No overall differences were observed between groups. Given the large variations in hypnotic susceptibility and self-hypnotic practice, a multiple regression analysis revealed important predictors of self-esteem improvement for the experimental group. The child's hypnotic susceptibility score and self-hypnotic practice by children and parents were the most relevant. These LD children were significantly more hypnotically susceptible than a normative sample. Hypnotherapy is seen as feasible in group administration by persons only moderately trained in hypnosis and of potential benefit to self-esteem improvement in LD children, depending on individual difference factors. (Author)

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Group Hypnotherapy with Learning Disabled Children

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The Uses of Hypnotherapy with Learning Disabled Children

One of the most serious problems facing the field of learning disabilities (LD) has been succinctly stated by one of its early workers: "In this area, ..., not only is there an overabundance of terminology but there is no common denominator of understanding" (Cruickshank, 1972, p. 382). Myers and Hammill (1976), in examing the definition of LD, concluded that "we have no completely suitable definition of learning disability" (p. 10). They further observed that in many schools today a solely operational definition is utilized rather than a conceptual one that the learning disabled child is one who exhibits problems in basic school-related activities such as reading, writing, spelling, and arithmetic. A survey by Kirk and Elkins (1974) of the problems being addressed by LD teachers in 23 different states revealed that by far the majority of learning disability cases dealt with reading, spelling, and arithmetic.

The apparent inability to find commonality among LD children, other than statements relating to lack of academic achievement, leads into a purely circular argument. One implication of this lack of commonality is that the field has been much more successful in dealing with symptoms than with causes. The Kirk and Elkins study bears this out; only a very low percentage of the cases surveyed dealt with the underlying process type of treatment such as perceptual motor training.

If LD is to become more than simply a reified construct, continued search for some homogeneous causalities must be made. A beginning point,

based primarily on clinical evidence, is the relationship of self-perception and academic achievement. Two studies, Jones and Strowic (1968) and Jones and Grieneeks (1970), demonstrated that nonintellectual measures, classified as measures of self-perception and self-concept of ability, predicted students' grade-point averages better than measures of intelligence and aptitude at both the high school and college levels.

The relationship between self-perception and reading ability in elementary aged children was investigated by Griffiths (1975). A group of 131 low readers with average or above-average intellectual ability were administered several measures of self-perception. While the group showed positive perceptions of themselves in some areas, they tended to perceive themselves as being very low in all school (academic) related areas in intellectual ability. Van Koughnedt and Smith (1969) stated that "for a child to achieve, he must view himself as able to achieve" (p. 253). They further contended that schools should actively enhance the self-concept of children, emphasizing the fact, however, that research on how to do this is seriously lacking.

A common approach to improving the child's self-perception of academic abilities has been to restructure what is expected of the child by reducing the expectation level to the extent that the student can perform successfully. Cohn and Kornelly (1970), in a study designed to demonstrate improved self-image of poor readers, utilized this strategy. By lowering the expectations for a group of seventh graders with reading problems, improved self-image resulted. With regard to this type of approach, two questions emerge: (1) Does the positive self-perception

based primarily on clinical evidence, is the relationship of self-perception and academic achievement. Two studies, Jones and Strowic (1968) and Jones and Grieneeks (1970), demonstrated that nonintellectual measures, classified as measures of self-perception and self-concept of ability, predicted students' grade-point averages better than measures of intelligence and aptitude at both the high school and college levels.

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generalize from the artificial setting of reduced expectations and demands to other more realistic settings? (2) To what extent does a change in an individual's belief system directly follow change in performance level? Concerning the second question, situations where belief does not change in direct ratio or direction to change in action seem to be quite common.

Since performance often springs from self-perception, those interested in improving performance will always look for ways to modify the self-beliefs system directly. One seemingly potential direction in changing self-perception is the use of suggestion to directly alter the belief system. The methodology for this approach would be some form of hypnotherapy.

Hypnosis has enjoyed a long history of clinical use in psychiatry and psychotherapy, marked by variable public acceptance and a continuing incomplete understanding of its effective components. A chief therapeutic focus has been to reorganize various cognitive/emotional structures relevant to clinical or educational problems. Hypnosis has been used as an adjunctive therapy to improve self-concept in children by suggestions of reduced anxiety, increased motivation, images of success, and increased confidence. Kroger (1963) describes its use with intellectually deficient children to increase motivation and conviction that they can learn. Most procedures utilize the imagery-enhancing aspect of hypnosis to augment the general suggestions of self-concept and attitude improvement, as well as for specific learning aids in improving visual memory, reading comprehension, attention, etc. (e.g., Jampolsky, 1975; Lazar, 1977). Critical reviews of hypnosis and the learning process are available

(Fowler, 1961; Barber, 1965).

Hypnotic susceptibility of children has been studied extensively by London and Cooper (1969; Cooper and London, 1966). Their work shows that normal children are generally more susceptible to hypnosis than are adults on standardized hypnotic tests (London and Cooper, 1969) but lose this differential as they approach adult years. The Hilgard (1968) "Developmental-Interactive" theory of susceptibility states that hypnotic abilities are innate but may be lost through developmental learning unsympathetic to the fantasy and imagery skills necessary for hypnosis. Thus, hypnosis as a clinical and educational tool may be actually more effective for children than adults. Hypnotherapeutic success claims are frequently exaggerated or sensationalized by non-professional practioners. Yet its potential deserves perhaps greater, if critical, consideration by those dealing with children's problems, considering its successful use in countering the detrimental effects of negative attitudes and self-confidence. To date there is little data on the susceptibility of exceptional children compared to normals. Investigators are divided as to whether such children are poor (Hartland, 1966) or acceptable (Ambrose, 1950; McCord, 1956; London, 1962) subjects for hypnosis or hypnotherapy. No reports are available on children of average intelligence with special "learning disabilities." The present study provides preliminary data on this question.

Studies of hypnotherapeutic work with LD children are increasing (Jampolsky, 1970; Jampolsky, 1975; Illovsky and Fredman, 1976) with the widening attempt to optimally educate this population. The later two of these studies employed hypnotic treatments administered to groups

of LD students in ways which suggest potential mass usage by educators rather than one-to-one treatment by clinical personnel. Illovsky and Fredman (1976) offered tape-recorded hypnotic suggestions to hyperactive children in 15 minute preschool sessions conducted by classroom teachers. Improvement ranged from decreased hyperactivity to better than average class performance with up to 55 routine sessions.

More remarkable is Jampolsky's (1975) claim of marked academic improvement while having greatly compressed the length of typical hypnotic treatment into three 45-minute sessions. He also appears to have taken into account more social-psychological factors as potentially causing or maintaining the learning problem, although he does not formally say so. By involving both the parents and teachers in hypnotic techniques similar to those of the LD student subjects, he hoped to change the negative impact which attitudes or behaviors of these adults may have had on the learning problem. Students in the experimental group showed an average increase in their reading skill of 1 1/2 years in a period of one month compared to an average increase of one month for the untreated LD control group, along with improvements in self-esteem and in interpersonal relationships with parents and teachers.

A procedure producing results with such potential benefit to special education bears replicating and extending. The Jampolsky (1975) while intriguing, leaves several questions incompletely answered which require more careful consideration. Jampolsky did not present actual data on a possible relationship between self-esteem improvement

as a mediator (or correlate) of the improvement in school achievement. Also, while he gave the gross differences between experimental and control outcomes, the relative contribution (and predictive power) of such individual components as hypnotic susceptibility, amount of hypnotic training attended, and amount of self-hypnosis practice was not considered. The present authors suspect that, in practical application, group differences may not tell as much as do individual differences on such variables; that is, group treatment may be highly feasible and economical, but the effectiveness of the procedure may be better evaluated via such individual techniques as multiple correlation, designed for the analysis of continuous data and multiple variables. Finally, no data is given by Jampolsky on the comparative susceptibility of LD and normal populations.

As outlined below, this study attempts to replicate Jampolsky (1975), extending the type of data gathered and analyzed for more explanatory power. It should still be considered a preliminary feasibility study of such group hypnotic intervention with the LD child plus significant others relevant to the psychological aspects of the LD problem.

Method

Subjects

Fifteen students ranging in chronological age from 7 to 13 (12 males and 3 females) comprised the experimental group. These children had all been classified as LD by the local school district on the basis of their functioning above the retarded range but having serious

academic problems. All were receiving special help from an LD specialist at the time this study was conducted. Eighteen children comprised the control group. They ranged in chronological age from 8 to 12, with 9 males and 9 females.

Procedure

Three instruments were administered to both both groups on a pre-post test basis: Wide Range Achievement Test (WRAT; Jastak, Bijou, and Jastak, 1965), Durrell Analysis of Reading Difficulty (DARD; Durrell, 1955), and Coopersmith's Self-Esteem Inventory (SEI; Coopersmith, 1967). The control group was administered the same three instruments on a pre-post test basis. In addition, the experimental subjects were administered the Children's Hypnotic Susceptibility Scale (London, 1963) prior to the outset of the treatment procedure on an individual basis. A rating of Children's Self-Esteem Behaviors (SED; Coopersmith, 1967), was also completed for the experimental group by the children's parents and their teachers (i.e. home room or language arts) on a pre-post test basis.

The children in the experimental group participated in each of three group hypnotic training sessions designed and utilized by Jampolsky (1975) for suggesting images of self-esteem and academic improvement. The sessions also provided training in self-hypnosis for autosuggestion of the same images. The parents and the teachers of these children also participated in each of three training sessions similar to the children's with the exception that they were given images of their child in terms of improved self-esteem and academic improvement.[1]

The group training sessions were conducted by the investigators. All three groups (i.e., children, parents and teachers) were encouraged to practice the self-hypnotic technique daily over a six-week period. At the end of the six weeks the post-testing was done. Both parents were involved for the majority of the children. Only seven teachers were involved. One of the limitations of the study is that, despite a concerted effort on the part of the experimenters, teacher participation was obtained with only about one-half of the children's teachers. Other difficulties associated with the study should be mentioned. Because subjects were drawn from a relatively small community, they had to be solicited rather than selected by a randomized selection process. The subjects for the experimental group were selected by contacting parents of LD children and inviting them to a special meeting. At this meeting the intent and general procedure for the study were explained. Those parents who then expressed interest in having their child participate in the study were communicated with further, with the end result being that the parents of fifteen children committed themselves and their children to participate in the study.

An attempt was made to find a LD control group to be given no treatment for comparison purposes. An agreement was reached with a parochial school, since public school children were unavailable for this purpose. While this school did not have an LD program, they did have a number of children who were low achievers and whose functioning seemed similar to that of diagnosed LD children. The investigators utilized these subjects as the most closely matched control group available.

Results

A comparison of hypnotic susceptibility scores was made of our LD sample with London and Cooper's (1969) normative sample. The samples were reasonably similar in subject variables. The large normative sample (N = 240) ranged in age from 5 through 16, equally divided between boys and girls at each age, compared to our sample as described above. The LD sample was higher in mean hypnotic susceptibility by 8.28 on a 60 point scale (Table 1), suggesting that LD children ought to be at least as adept at utilizing hypnotic suggestions as "normals" and perhaps more so. With this difference between means, a LD sample of 50 would have resulted in statistical significance ($p < .05$).

Insert Table 1 about here

No group differences were found between experimental and control groups in any academic achievement test scores through analyses of covariance (i.e., with initial group differences held constant). Modest gains in WRAT and DARD subscales appropriate for a retest after two months were observed for both groups. Similarly, the groups did not differ overall in the child's self-esteem as self-reported on the Coopersmith SEI. Increases in the child's SEB (rated by the adults) were in the expected direction for the hypnosis group, increasing from pre- to post-treatment but nonsignificantly (Table 2).

Insert Table 2 about here

The procedures for the two groups may not have been as distinct in actual administration as in design. Some variability was found during the six weeks of once-daily home practice in self-hypnosis, despite motivational efforts to encourage practice. Compared with the prescribed 42 practice sessions, children's practice ranged from 2 to 42, with a mean of 23.33 and a standard deviation of 14.3. Parents ranged from 0 to 42 with a mean of 20.43 and standard deviation of 13.85. Mothers averaged more sessions than fathers (21.87 to 19.00). The general pattern was of many individuals who racticed frequently and a few who did not at all, thus lowering the means. Teachers ranged from 0 to 30, with a mean of 20.86 and a standard deviation of 10.6. Such variability in independent variables is probably inevitable whenever some aspects of the procedure depend on subject home practice. For this reason as well as for reasons of the several dependent measures used, statistical techniques for analyzing the simultaneous correlation of several variables provided more useful information about their effect on the experimental groups then did the comparisons of experimental and control group differences alone.

Several significant multiple correlations provided meaningful information on the important factors in predicting change in self-esteem via the hypnotherapeutic procedure but not in academic performance. Table 3 lists several ratings of change in self-esteem, along with the multiple correlation of the combination of variables which best predicted that

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Insert Table 3 about here

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change. The percentage of variance of change in self-esteem accounted for by that combination and by the individual variables are also given, along with the significance levels for the multiple correlation. Note that the SEB change rated by mothers or teachers correlated most highly with the child's measured hypnotic susceptibility and the number of child's practice sessions, in that order ($R = .625$, $p < .05$). For mothers, these child variables best predicted their SEB ratings. For teacher-rated change, the additional factors of self-hypnotic practice by parents and teachers were also important, in that order. The small number of participating teachers hampered the significance level of this very high correlation ($R = .963$, $p = .15$). Father-rated SEB change, by contrast, was more highly predicted by mother's and father's practice, with the child factors of self-practice and hypnotic susceptibility included but less important ($R = .794$, $p < .025$). Finally, child-reported improvement in self-esteem (SEI) correlated .726 ($p < .01$) primarily with their own practice and secondarily with their initial hypnotic susceptibility.

Discussion

This study strengthens the credibility of earlier studies in demonstrating the feasibility of suggestive/hypnotic procedures with LD children. The successful implementation of prepared hypnotic scripts by therapists relatively unexperienced in hypnosis is highly encouraging to the potential application of such procedures by school personnel. Group administration also presents no undue procedural problems, either to the children or to cooperative parents and teachers. No difficulty was experienced in attracting motivated parents to allow their child's

participation as well as to participate in hypnosis themselves. Their eagerness to participate greatly surpassed the school district's estimate. Probably some parents of identified LD children would not be so willing. Participation by teachers was less eager, and we would endorse Illovsky and Fredman's (1976) decision to highlight the terms "suggestion" and "relaxation" in preference to "hypnosis" in explanations to the public. One might also expect cooperation to be greater if the therapeutic program came from the psychological or special education personnel of the school itself. Those teachers who participated were enthusiastic and committed. The fact that not every child's teacher did participate hampered the finding of significant group differences. We feel the inclusion of parents and teachers if feasible, given proper public relations work. Of course, this study does not address whether their inclusion adds anything beyond the treatment of the child alone; this will have to be answered by future research.

Another factor contributing to the feasibility of hypnotherapy with LD children, according to data in this study, is their trend in the direction of higher-than-normal hypnotic susceptibility. A theoretical rationale for such a difference is lacking at this point. One is tempted to hypothesize that LD children may be more hypnotizable because they, for reasons of frequent failure experiences, may be more "externals" than "internals" (Rotter, 1966) in perceived locus of control, feeling themselves more controlled by environmental forces than personal choice and hence more responsive to suggestions. However, Tyler (1975) found no relationship between susceptibility and "external" orientation. The observed

trend needs further replication to be taken seriously. Jampolsky (1975) theorizes that LD children fail in academics because they are more right hemisphere dominant neuropsychologically. If this is true, they may be more hypnotically susceptible because of high right hemisphere activity, which is typically found in the highly susceptible (Hilgard and Hilgard, 1976). Perhaps the most important implication is that, despite the stereotyped distractibility, short attention span, etc., of LD children, they are at least as hypnotically suggestible as normals, and quite possibly more so. Thus they do stand to benefit by whatever therapeutic factors are involved in hypnosis.

This study is less supportive of actual group therapeutic claims made by earlier studies. Group difference data do not allow the conclusion of beneficial effects of hypnotic suggestion on academic improvement, either mediated by self-esteem improvement or not. The failure to replicate Jampolsky's (1975) finding impels an examination of both procedures. Jampolsky (1975) does not actually give the group sizes but describes them as "small experimental and control groups" (p.8). The Jampolsky and Haight (1975) article reports only one case study with this method. It is thus difficult to determine to what extent their findings are actually based on group procedures or group data. Providing the greater generalizability of a (presumably) much larger sample, our actual group method does not replicate the results on a standardized academic test nor find other group differences in change in self-esteem. However, had it been possible in the present study to select a random LD control group from the same school district, more confidence in these nonsignificant group differences might be realized.

It is perhaps inevitable that large-group data based on such individual difference factors as hypnotizability and home practice of various participants might obscure any real group differences in the procedures. The nonsignificant group differences advise skepticism of findings claiming major academic or self-esteem benefit in unselected LD children via group hypnotic suggestion, even when parents and teachers attitudes are similarly treated. Certain individual difference factors associated with the hypnotic procedure, however, were highly predictive of self-esteem improvement and are potentially useful in individual LD therapeutic programming. Let us consider the multiple correlation data.

The similarity in the mother and teacher-ratings of self-esteem behaviors in the child is striking, in terms of the principal predictive components. It is significant that these home and school behavior changes, as rated by those who have probably the closest interactions with the child, are predicted by the child's simple hypnotic susceptibility score far better than by any other predictor. This tends to disconfirm any hypotheses about possible placebo effects of participation. The child's practice is a somewhat less potent predictor, while the mothers' and teachers' own self-hypnotic practice was much less relevant; the one factor under their control was not important. That the child's self-esteem improvement, as seen by those individuals significant to the child's learning, is well predicted from the child's hypnotic susceptibility argues well for susceptibility testing as a device for predicting home and school-related self-esteem benefit through hypnotherapy.

By contrast, the multiple correlation of fathers' ratings of their child's self-esteem improvement was best predicted by the fathers' and

mothers' own self-hypnotic practice, with the child's susceptibility of much less value. Perhaps fathers are typically more distant from their child's daily behavior and potential hypnotic responsiveness than the other raters, and thus the parental input factors (practice) become more relevant in fathers' judgments. This finding gives some promise to change in attitude toward the child through hypnosis as perhaps most promising for fathers, since the predictive factors are more under their control.

The most salient criterion measure of self-esteem improvement for the child is, of course, his or her own estimate. It is encouraging that this self-rating was best predicted to a very great extent by the child's own practice, with his hypnotic susceptibility score also of some importance. This outcome suggests that the child can exert some control over his own self-esteem through hypnotic training, since the most important factor involved is under his own control (self-hypnotic practice).

In conclusion, the feasibility and promise of group hypnotherapy involving LD children and their collaterals in the learning process, given adequate cooperation from these individuals and school personnel, have been supported. No attempt was made to demonstrate to what degree the inclusion of parents and teachers in hypnotic training adds to the treatment of the children themselves, a very relevant question which needs future research. Our failure to replicate previously reported (Jampolsky, 1975) group increases in standardized academic and self-esteem measures invites some reexamination and skepticism of this previous finding. In the least, caution is advised in expecting such group differences over untreated controls without regard to relevant individual differences predictive of improvement, even though group

treatment is quite feasible. For the self-esteem factor in LD, an interesting pattern of predictors emerges from the multiple correlation of such individual factors. This pattern includes hypnotic susceptibility, personal self-hypnosis practice for children, and practice by significant adults. These factors are involved to differing degrees, probably dependant on the particular perspective of the role of the rater, as hypothesized above.

Group differences in academic skills may yet be noted in future studies utilizing measuring instruments with more suitable sensitivity for reflecting subtle changes in performance. Only rather gross changes are reflected on standardized achievement tests. In the six week period of this study, changes may well have occured without being detected by the instruments used. It is recommended that future studies in this area utilize a time series approach where specific responses are measured over time and analyzed to detect change.

This study provides encouragement for those desiring impact on the self-esteem factor in LD, as well as a procedure for group administration by personnel not highly trained in hypnosis. Such a program can maximize its success by hypnotic susceptibility screening for children with higher levels of susceptibility and by administrative/motivational efforts to ensure self-hypnotic practice, especially for the children and parents.

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Footnotes

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[1]Typescripts of the hypnotic training sessions are available from the first author on request.

Table 1

Differences in Hypnotic Susceptibility (CHSS):

LD Sample vs. London and Cooper's

Normative Sample (1969)

Group	$\bar{X}$	S	n
LD	51.73	10.53	15
Normative	43.45	15.0	240

$t = .534$, $df = 253$: $p < .3$

Table 2

Means and Standard Deviations of

Self-Esteem Behaviors

For Experimental Ss

	Pre-treatment		Post-treatment			
Rater	$\bar{X}$	SD	$\bar{X}$	SD	Change	n
Mother	14.8	4.9	15.53	5.11	+ .73	15
Father	14.27	4.89	15.93	4.6	+1.66	15
Teacher	7.3	8.5	8.06	9.08	+ .76	7